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- (56)
- References Cited**

- U.S. PATENT DOCUMENTS

- | | | | | |
|--------------|------|---------|-----------------|---------------------------|
| 7,495,895 | B2 * | 2/2009 | Carnevali | G06F 1/1626
361/679.26 |
| 8,516,645 | B2 * | 8/2013 | Kraemer | A46B 5/0029
15/201 |
| 9,353,558 | B2 * | 5/2016 | Hatton | E05C 19/10 |
| 2004/0010919 | A1 * | 1/2004 | Shiba | B26B 19/048
30/43.92 |
| 2007/0034725 | A1 * | 2/2007 | Duh | B02C 18/0007
241/236 |
| 2007/0186382 | A1 * | 8/2007 | Huang | G06F 1/1681
16/293 |
| 2010/0002377 | A1 * | 1/2010 | Kim | H04M 1/0214
361/679.55 |
| 2010/0288405 | A1 * | 11/2010 | Hsu | G06F 1/1613
150/165 |
| 2014/0251368 | A1 * | 9/2014 | Lawson | A45C 11/00
132/287 |
| 2016/0029760 | A1 * | 2/2016 | Park | A45C 11/00
224/242 |
| 2016/0066457 | A1 * | 3/2016 | Tien | H04B 1/3888
206/45.2 |

- (Continued)

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- (22) Filed: **Sep. 23, 2016**

- (65) **Prior Publication Data**

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- ### Related U.S. Application Data

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- (51) **Int. Cl.**
H04M 1/00 (2006.01)
H04B 1/3877 (2015.01)
H04B 1/3888 (2015.01)

- (52) **U.S. Cl.**
CPC *H04B 1/3877* (2013.01); *H04B 1/3888*
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- (58) **Field of Classification Search**
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H04M 1/6033
USPC 455/575.1, 90.3, 575.3; 379/433.13, 454
See application file for complete search history.

- Primary Examiner* — Dominic Rego

- (74) *Attorney, Agent, or Firm* — Dickinson Wright RLLP

- (57) **ABSTRACT**

This application relates to a computing device case that provides some amount of torsional force in order to cancel at least some static and dynamic loads experienced by the computing device when the case is arranged as a stand. By canceling out these loads, the computing device to be angled at an almost unlimited number of angles relative to a surface on which the computing device is resting. Flexible elements in the case can resist the static and dynamic loads of the computing device, thereby allowing the computing device to receive touch inputs at almost any angle without causing the case and the computing device to collapse.

20 Claims, 10 Drawing Sheets

